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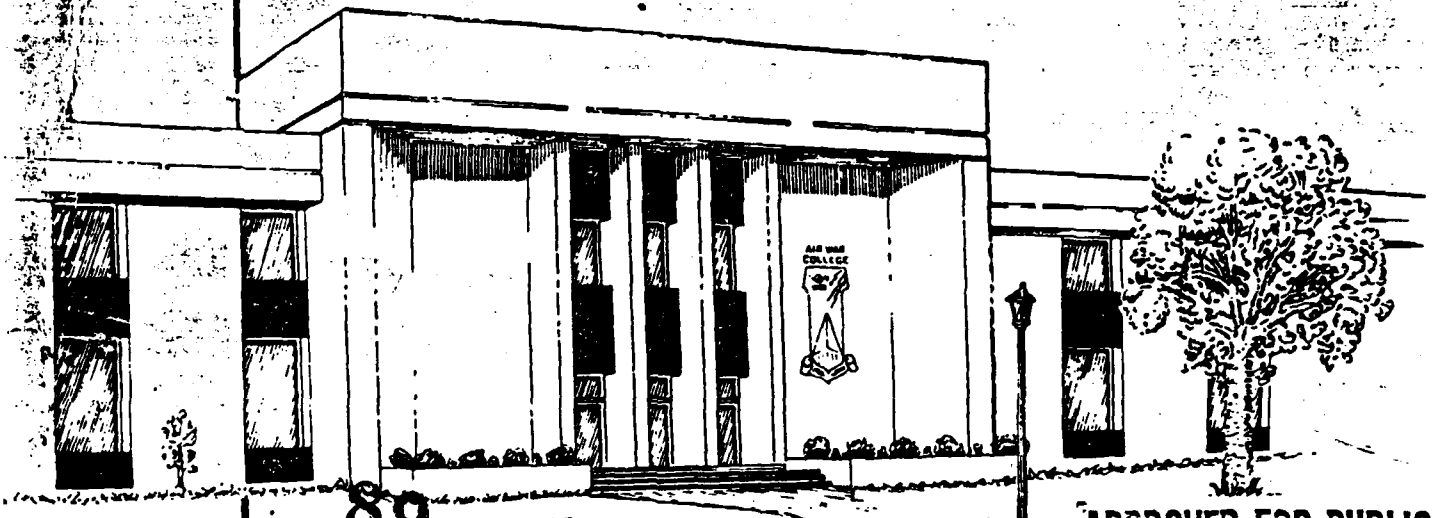
AIR WAR COLLEGE

RESEARCH REPORT

INTELLIGENCE SUPPORT TO THE
OPERATIONAL LEVEL OF WAR

MR GERALD D. CASPER

1988



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MAXWELL AIR FORCE BASE, ALABAMA

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INTELLIGENCE SUPPORT TO THE OPERATIONAL LEVEL OF WAR

by

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A RESEARCH REPORT SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE RESEARCH

REQUIREMENT

Research Advisor: Colonel Donald Panzenhagen

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AIR WAR COLLEGE RESEARCH REPORT ABSTRACT

TITLE: Intelligence Support to the Operational Level of War

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This paper discusses the recent emphasis in the US Army and Air Force on the theory of the operational level of war and the requirement for intelligence support to operational commanders. The author comes to the conclusion that a working definition for operational intelligence is lacking. Without an adequate definition, there is confusion over what should be done to support field commanders, and unnecessary duplication of intelligence analysis and production by the military intelligence community in supporting the operational level of war. A new definition of operational intelligence is offered and a way to overcome the duplication problem is suggested.

BIOGRAPHICAL SKETCH

Mr. Gerald D. Casper is a senior intelligence research specialist at the Defense Intelligence Agency, and is a career intelligence officer. He is a graduate of the Defense Intelligence Agency's Post Graduate Intelligence Course and the Naval Postgraduate School (M.A. in National Security Affairs). He joined the United States Air Force in 1966 and served in a variety of intelligence assignments at the Tactical Air Command, Pacific Air Forces, and at the Defense Intelligence Agency. He joined the Defense Intelligence Agency as a civilian in 1978. At DIA, he has been both an analyst and section chief responsible for reporting on China's air forces; Senior research analyst for the China Branch; and, most recently, senior analyst for the Eastern Division. He is a Lieutenant Colonel in the Air Force Intelligence Agency/Reserve and is assigned as a Mobilization Augmentee to Headquarters, USAF, Assistant Chief of Staff, Intelligence in Washington, D.C. Mr. Casper is a graduate of the Air War College, class of 1988.

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CHAPTER 1

INTRODUCTION

This paper is primarily concerned with defining the type of intelligence support required at the operational level of war and determining which echelons within the military intelligence community are best suited to provide it. A large volume of research is available on strategic intelligence and on the requirements for tactical intelligence, but there is a paucity of data on how intelligence organizations should support campaign planning and theater-level combat operations.

A key to knowing what intelligence organizations ought to do in support the operational level of war should be in existing definitions of operational intelligence. Current definitions, however, are not adequate to describe the role of intelligence at the operational level of war. The lack of a good definition results in confusion over what should be done and who should do it.

Operational Intelligence: An Overview

On July 16, 1943, six days after the allied invasion of Sicily, the command element of the US Seventh Army stood on high ground overlooking an invasion beach in Southern Sicily. So far, the invasion had gone very well, better than expected. The Seventh Army commander, Lieutenant General George Patton, was eager to press the attack. His request for permission to move on had been

granted with one proviso -- such action would not bring on a major engagement.

> General Patton's question was directed to his G-2.
> "If I attack Agrigento, will I bring on a major engagement?"
> "No Sir."
> Patton looked at the G-3, nodding assent.
> "Issue the order." (1:1,167)

To Colonel Oscar Koch, Patton's G-2, the question was not a simple one:

> ...The query, succinct as it was, implied a great many questions rolled into one: Is the enemy capable of taking a determined stand if I attack with my present troop strength and dispositions? Are his troop strength and dispositions such that I can expect to defeat him decisively, meanwhile keeping the engagement local in nature? Is he capable of offering so determined a defense that he might force me to bring in additional troops - ones now committed elsewhere or in reserve - to defeat him? Is he capable of bringing up reinforcements in such strength as to stage a general counteroffensive? ... Will the characteristics of the terrain favor his defense or my attack, or will it be of equal favor to both of us? Will the streams and rivers that are now fordable remain so? Or do weather forecasts indicate the probability of flash floods in the mountains, or of swollen, impassable streams? (1:42)

Colonel Koch's simple two word response was not a "gut" reaction to the situation at hand. Rather, his response was based on months of meticulous preparation for the invasion of Sicily. His G-2 staff had worked long and hard since January on intelligence preparation of the battlefield. He followed three simple principles: know your enemy, the terrain he controls, and the weather. (1:43) The accumulation of data before the invasion plus the information acquired after combat had begun enabled him to quickly

assess enemy capabilities and give his estimate of the enemy situation.

This vignette portrays the essence of intelligence support to the operational level of war that is as valid today as it was then. With today's emphasis on maneuver war and follow-on forces attack doctrine, military intelligence must be as prepared today to answer the commander's question as forcefully and as timely as Col Koch was prepared to do over forty years ago. Two points need to be made here. The first is that the battlefield commander had a specific objective in mind and asked a direct question toward the accomplishment of that goal. The second point is that the G-2 was able to respond instantly to the question without referring the matter to his staff for detailed analysis. The combination -- clear and concise objective-detailed understanding of the enemy situation -- led to a successful attack on Agrigento. We can ask no more of our operational commanders and their intelligence officers today.

THE MODERN BATTLEFIELD AND INTELLIGENCE SUPPORT

US armed forces can be called on to fight anywhere in the world at any time. US security commitments require a heavy emphasis on planning for combat operations against the Soviet threat in Europe and the North Korean threat in Asia. However, planning for military operations elsewhere also must take place. Complicating the geographical spread of US interests, is the wide variety of operations US forces must

be prepared to conduct. The spectrum of conflict can range from fairly small (though not necessarily simple) operations, such as counterterrorist raids or hostage rescue operations, to global conventional or thermo-nuclear war.

The military intelligence officer and his civilian counterparts face a far different world than the one that existed before World War II. The changes in the international environment since then have had a major impact on the type of support expected from the intelligence community. Dr. Richard K. Engel, former Director of Tactical Intelligence Systems (ASD/C3I), wrote:

> The nature, dynamics and complexity of warfare have changed dramatically within the 20th century. Warfare, once characterized by fixed lines, massed infantry and limited depth, has been transitioned into the highly mobile, lethal and extended battlefield of today. As the battlefield has changed, so have the requirements for intelligence support. Intelligence support is now stressed by a compressed time frame, extended geography, expanded requirements and increased exposure to enemy actions. (2:47)

Today, intelligence is being called on know more and to be able to respond faster than anytime in the past. (3:43)

Study Parameters

This research study will examine the operational level of war and the intelligence requirements necessary to support it. It will critically review current definitions of intelligence, relate the intelligence process to the operational level of war, and suggest a solution to the problem of duplication of effort within the military

intelligence community. The primary goal of the study is to redefine operational intelligence; a secondary goal is establishing analytical and production responsibilities for operational intelligence.

CHAPTER 2

THE OPERATIONAL LEVEL OF WAR

Defining the operational level of war

The term "operational level of war" is fairly new in the US military lexicon. It is positioned between strategy and battlefield tactics. At this level, the commander links his tactical actions to the overall national strategy and determines the sequence of tactical events that will attain strategic goals. (4:65) US Army Field Manual (FM) 100-5, Operations, uses the term "operational art" to refer to this level of warfare. It says:

> Operational art is the employment of military forces to attain strategic goals in a theater of war or theater of operations through the design, organization, and conduct of campaigns and major operations. A campaign is a series of joint actions designed to attain a strategic objective in a theater of war....A major operation comprises the coordinated actions of large forces in a single phase of a campaign or in a critical battle. Major operations decide the course of campaigns.
>
> Operational art thus involves fundamental decisions about when and where to fight and whether to accept or decline battle. Its essence is the identification of the enemy's operational center-of-gravity -- his source of strength or balance -- and the concentration of superior combat power against that point to achieve a decisive success.... (5:10)

The four operative words in this definition of operational art are identify, design, organize, and conduct. In each area, intelligence will have a major input. Before intelligence can make any contribution, however, it must know the commander's game plan. Air Force Manual (AFM) 1-1 puts it succinctly: "The most basic principle for success in any

military operation is a clear and concise statement of a realistic objective." (6:2-5) Once the strategic objective is defined, subordinates can develop the military tasks required to attain it. For example, in World War II, General Eisenhower's strategic goal was the destruction of the German armed forces. The campaign plan to reach this goal was divided into seven phases, "each consisting of a number of sequential and simultaneous operations." (7:43)

In general, the strategic objective will be given to the operational commander from national command authorities. While intelligence will have a major role in shaping the strategic aim, this support generally will come from national level intelligence organizations.

Characterizing the operational level of war

The boundaries for theaters of war will be decided at the national level; they find their form today in the unified command structure of US armed forces. The theater may be subdivided into theaters of operation. For example, the European theater of war is comprised of three operational theaters: northern, central, and southern. Success or failure in one theater may help or hinder military operations in the other two theaters, or enemy forces may stage, or be directed and supplied, from one theater for attacks in another theater. Consequently, theater intelligence must maintain an awareness of conditions and plans beyond its own boundaries.

The most important role for intelligence in campaign planning, as explicitly stated, is identifying the enemy's center-of-gravity. (5:179) Clausewitz coined this term and defined it as follows:

> ...one must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed. (8:595-596)

As Clausewitz goes on to point out, the center of gravity is not necessarily the enemy's armed forces. It could be his political system, his society, or his alliances, among other things. (8:596) Further complicating the identification of the enemy's center-of-gravity, is that each major division of conflict -- the strategic, the operational, and the tactical -- may have its own center-of-gravity.(FM 100-5, 179-180). Even if the center-of-gravity is a suitable military target, the operational commander may not be able to attack it because it is outside his theater or off-limits for political reasons. For example, during the Chinese intervention in the Korean War, the Chinese center-of-gravity was probably the supply depots and other support facilities across the Yalu river. For political reasons -- attempting to keep the conflict localized -- these targets were not subject to attack. The theater commander and intelligence staff, therefore, had to do the best they could in determining and attacking operational and tactical centers-of-gravity. The dilemma posed in such cases is that the

campaign plan, however good it might be theoretically, is flawed, perhaps fatally, if the enemy's center-of-gravity is beyond the theater commander's ability to influence.

A major feature of current Army and Air Force doctrine at the operational level of war is a renewed emphasis on the deep attack mission. For the Army, this means moving through or around enemy frontline forces to engage second echelon forces before they can be brought into combat. (5:19) The Air Force's air interdiction mission is aimed at delaying, disrupting, diverting, or destroying an enemy's military potential before it can be effectively used against friendly units. (6:3-3) In either case, finding enemy forces beyond the immediate vicinity of the battlefield is crucial to the success of the deep attack mission.

Intelligence will play the key role in "seeing deep" behind enemy lines. The Army's Airland Battle doctrine calls for corps-sized units to seek information on enemy forces 96 hours away from the main battle area. (9:131) The Air Force does not prescribe any set distance or time but it would be, at a minimum, a distance equal to the radius of action of enemy aircraft in relation to the main battle area. Of course, these times or distances will vary depending on the enemy, the terrain, and the weather, and the type of conflict being fought. They will apply more to large-scale conventional operations in central Europe than to counterinsurgency operations in tropical jungles. John S.

Doerfel summed up intelligence's responsibilities when he wrote "Simply put, intelligence must tell us what is to our front, and where it is located in time and space." (10:118)

Success at the Operational Level of War

The most important factor for success at the operational level of war is a clear and concise statement of objectives to be attained. This process necessarily begins with national command authorities defining the US strategic goals in the theater. Ronald D'Amura has summarized the importance of this step in the planning process in discussing the preparation for Operation Overlord in World War II:

> ... Strategic guidance from civilian and military policymakers as a prerequisite to the formulations of campaigns was just as important in years past as today. On 12 February 1944, in fact, the Allied Combined Chiefs of Staff initiated Overlord by providing strategic guidance in the form of a directive to General Dwight D. Eisenhower, the Supreme Commander, Allied Expeditionary Force. In a one-page document...the Chiefs outlined the Allies' strategic war aim and specified general mission guidance ..."Enter the continent of Europe, and...undertake operations aimed at the heart of Germany and the destruction of her armed forces." (7:43)

Similar guidance must then be passed down the theater in decreasing levels of generality (or increasing levels of specificity) so each unit in the chain of command will know what is expected of it.

Once the strategic goal is known, intelligence begins to fulfill its role in helping the commander shape his theater objectives by identifying the enemy's center(s) of gravity and determining which ones are within the commander's

reach. Once the commander's plan of action has been decided, intelligence units initiates appropriate information collection actions to continually monitor such centers or develop new ones, as necessary.

Current US doctrine realizes that the US may have to fight as a member of a coalition in its next war. (5:164) General Livsey, former commander of UN and US forces in Korea, is quoted as saying that except for minor contingencies "all future US operations will be combined." (11:55) This feature of operational planning will pose special problems for the theater commander. He will have to cope with differing and probably conflicting political viewpoints, as well as deal with many of the other problems associated with combined operations, such as doctrinal differences and logistics, among others. (11:55) In other words, *it may be difficult for the theater commander to formulate a clear and concise statement of his objective.* He may have to issue a watered down statement to meet each ally's requirements. This will increase the difficulty for intelligence in defining centers-of-gravity, and in preparing the battlefield. Also, intelligence will have to work through the problems associated working with other national intelligence services, such as differing capabilities, information sharing, and establishing collection priorities.

CHAPTER 3

DEFINING OPERATIONAL INTELLIGENCE

Why should the term "intelligence" be defined? After all, everyone knows what it means. Unfortunately, intelligence has so many meanings that the term has become virtually meaningless. It can mean anything from a single piece of unevaluated information to massive automated data bases bulging with hundreds of thousands of records; most people just "know it when they see it." This chapter will spell out many of the problems associated with current definitions, both formal and informal ones. To answer the question, definition is needed because if we don't know what we're talking about, we won't know how to do it, who should do it, or when its done!

The Many Meanings of Intelligence

Intelligence can be defined in many different ways. It is often defined by the type of product used to package it, such as an intelligence estimate or briefing. It is also defined from a systems approach, that is, intelligence consists of a series of actions, such as collection, processing, and interpretation, leading to an output. The term can be used to discuss organizations within the government, for example, the "intelligence community." Many people think of intelligence as something "secret agents" do with cloak and dagger in hand, or as covert action such as toppling unfriendly governments Indeed, the majority of

titles in bibliographies of intelligence literature concern spy organizations and the exploits of the agents they employ. On the negative side, there is counterintelligence, the protection of state secrets from the "bad guys."

Intelligence also can be categorized by how it is used. At this more specific level of definition we find strategic and tactical intelligence, basic intelligence, target intelligence, scientific and technical intelligence, operational intelligence, combat intelligence, warning intelligence, policy intelligence, planning intelligence, current intelligence, estimative intelligence, and the list goes on.

Intelligence is often defined by how it is gathered. For example, if information is obtained from a human being it is called HUMINT. In the collection arena, there is signals intelligence (SIGINT), communications intelligence (COMINT), imagery intelligence (IMINT), and measurement and signatures intelligence (MASINT). Strictly speaking, none of "ints" are really intelligence; rather, they are sources of raw, unevaluated information (see discussion below on defining intelligence).

Of course, any profession worth its salt has its own jargon, and intelligence is no different from the rest. But, regardless of how it is defined, the term carries the connotation of information or knowledge about somebody, something, or somewhere.

Arriving at a Definition

Clausewitz, in his classic study On War, defined intelligence as "every sort of information about the enemy and his country -- the basis, in short, of our own plans and operations." (8:117) It is surprising that his definition did not include information about allies, particularly since he is concerned about protecting friendly centers of gravity, which may be alliances. (8:596)

Sherman Kent, considered one of America's leading experts on intelligence, took a similar tact in his definition of intelligence:

> Intelligence is knowledge...the kind of knowledge our state must possess regarding other states in order to assure itself that its cause will not suffer nor its undertakings fail because its statesmen and soldiers act in ignorance. (12:3)

Kent's primary concern was the use of intelligence in formulating national security goals. He differentiated between what he called "high-level positive intelligence" and the type of intelligence needed by field commanders, such as operational or combat intelligence. The definition quoted applies to the former. In a recent study on the process of intelligence in policy making, Maurer, Tunstall, and Keagle define intelligence as "refined information desired or used by the state to further its national goals or policies." (13:1)

All of these definitions are used in the context of discussing and determining the working relationship between

intelligence organizations and the national decision making process. In that sense, they are important to the theater commander, but only indirectly. The interaction of intelligence organizations with policy making bodies at the national level will, in large part, determine the strategic goals for his theater. Here, however, it is important to note that intelligence is treated as knowledge, not as a system.

While much thought recently has been given to the operational level of war, particularly in discussing the need for it and how to do it, a useful definition of intelligence for this level of war is not available. Neither the Army nor the Air Force have a definition for operational intelligence. The Navy and the JCS have definitions of operational intelligence, but both are limited to merely stating that it is intelligence required for planning and executing operations. (14:3) To quote Clausewitz slightly out of context, "What is the use of such feeble maxims? They belong to that wisdom which for want of anything better scribblers of systems and compendia resort to when they run out of ideas." (8:117) Not even JCS Pub. 2, Unified Action Armed Forces (UNAAF), defines intelligence in its 11 pages of guidance on how to conduct joint intelligence operations.

JCS Pub. 1, Dictionary of Military and Associated Terms, defines many types of intelligence. At the elementary level, intelligence is defined as

> The product resulting from the collection, processing, integration, analysis, evaluation and interpretation of available information concerning foreign countries or areas. (15:186)

This is a good definition of how the intelligence process or cycle is carried out. Defining intelligence in systemic terms, however, offers little on the type of information the theater commander will require in planning and conducting his campaign. It tells the commander how intelligence is prepared, but not what he needs. Consequently, it has little value in defining intelligence at the operational level of war.

Note that what distinguishes intelligence from information is the process of analysis, evaluation, and interpretation, that is, sometime after collection is complete but before production a judgment is made about the validity of the information collected. Once this judgment is made, information becomes intelligence.

The closest Pub. 1 comes to a definition of intelligence at the operational level of war is in its definitions of combat intelligence and basic intelligence. They are defined as as shown below.

> Combat intelligence: That knowledge of the enemy, weather, and geographical features required by the commander in the planning and conduct of combat operations. (15:74)

> Basic intelligence: Fundamental intelligence concerning the general situation, resources, capabilities, and vulnerabilities of foreign countries or areas which may be used as reference material in the planning of operations at any level and in evaluating subsequent information relating to the same subject. (15:48)

There are problems with both definitions if we try to relate them to the operational level of war. The focus of the term "combat intelligence" historically has been oriented towards the battlefield, that is, intelligence used by by tactical formations near, or in contact with, the enemy. (12:3) Although the definition meets Colonel Koch's three criteria, it is too broadly worded to be of value in specifying intelligence requirements at the theater level. Also, the definition fails to anticipate US involvement in combined warfare by leaving out critically important information needed about an ally's forces and capabilities.

The definition of basic intelligence comes closer to describing the type of intelligence needed at the operational level of war. But, it misses the mark on two points. First, it uses the word intelligence in the definition. Since Pub. 1 defines intelligence as a "product" we have a "fundamental product concerning...." The second point is more critical; there is no mention of enemy or friendly military capabilities. Also, within the intelligence community today, the term "basic intelligence" is used to describe encyclopedic-type information on each country or area of the world. Basic intelligence is best exemplified by the old National Intelligence Surveys published by the Central Intelligence Agency. There is no question this kind of information is needed for campaign planning; in fact, it is essential. The definition is simply too restrictive to

describe the kind of intelligence needed by a theater-level commander.

A New Definition

A more useful definition of operational intelligence can be formed by combining germane elements from these definitions. Any new definition, however, must assist in identifying intelligence requirements for theater-level planning and combat operations. At the operational level, intelligence organizations must help a commander to identify the enemy's center of gravity, to decide when and where to fight, and to accept or decline battle. These are the basic elements of operational art. To overcome the deficiencies of other definitions, operational intelligence can be defined as follows.

> *Operational intelligence*: Detailed knowledge of the capabilities and vulnerabilities of enemy and friendly forces in a theater of war or theater of operations, the terrain and weather patterns in and adjacent to such theaters, and the resources available to enemy and friendly forces for sustaining combat operations.

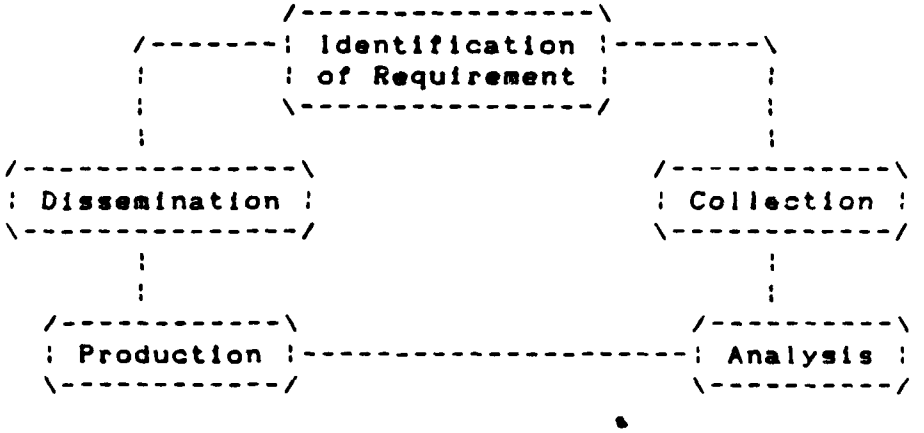
CHAPTER 4

THE INTELLIGENCE PROCESS

Historically, the process of acquiring information and converting it into intelligence has been termed the "intelligence cycle." There are many different versions of the cycle but each one has the idea of a logical sequence of events with each step along the way dependent on the previous one. (16:217) Figure 1 portrays the main steps in the intelligence cycle.

FIGURE 1

THE INTELLIGENCE CYCLE



(16:217-218)

Relating the Cycle to the Operational Level of War

Identifying requirements:

Before any information can be collected, intelligence organizations need to know what type of information is needed. JCS PUB 1 defines an intelligence requirement as "Any subject, general or specific, upon which there is a need for the collection of information or the production of intelligence." (15:188)

At the national level, requirements come in many forms. The Intelligence Community uses the National Intelligence Topics (NITs) issued by the National Security Policy Review Committee. The NITS "articulate National policymakers' intelligence requirements which are reflective of current national policy." (17:289) In addition to the NITs, the Department of Defense issues its own guidance to to plan both collection taskings and the analytic effort. (18) At the operational command level, the listing of Essential Elements of Information (EEIs) establishes collection and analytical priorities. (19:3-54)

The identification of requirements is the key to successful intelligence support to the operational commander. Intelligence can support the commander in two ways. First, intelligence helps the commander shape his overall theater objective by defining enemy centers-of-gravity and identifying exploitable enemy weaknesses. (20:10) Once defined, intelligence requirements can be levied to ensure

the objective is continuously monitored for signs of change or importance.

In most cases, the commander will not be able to achieve his objective in a single battle. He will generally plan on both simultaneous and sequential actions to reach his goal. (7:44) Intelligence supports the attainment of these near term goals by supplying the information needed for successful individual actions and by keeping in mind the relationship of the near term goals to the overall goal. Brigadier General Larry Church aptly summed up the intelligence-operational relationship in the process:

> ...It is the responsibility of intelligence to keep the commander's eye on that ultimate objective while he shapes nearer term objectives. It is my strong opinion that if asked, most commanders do not know what their intelligence requirements are at any stage of attaining an objective. (20:10)

Operational commanders cannot afford to assume the attitude of former Secretary of State Henry Kissinger, who is reported to have said "I don't know what kind of intelligence I need, but I know it when I get it." (21:252) Rather, today's operational commander would do well to emulate the attitude of MG Ehud Barak, Deputy Chief of Staff, Israeli Defense Forces. He said

> ...The proper use of intelligence is highly complex and frought with difficulties. Even though there are no easy solutions, civilian and military decision makers can better understand the realities of the situation and reduce the risk of making erroneous decisions by facing issues squarely and *asking the right questions.* (emphasis added) (22:33)

Collection of information

Collection actions consists of three interrelated phases: tasking of appropriate collection means, the actual acquisition of information, and the transmittal of the collected data to the requester. In many cases an additional processing step is required. For example, a photograph will generally require interpretation or a foreign language text, translation. Whether three or four steps are involved, the entire process is labeled "collection."

Each echelon of the intelligence structure will issue a collection plan against the requirements levied on it. A collection plan is "A plan for gathering information ...to meet an intelligence requirement." (15:186) The collection plan will specify a time limit for reporting the information collected to the requester.

The collection means available to intelligence organizations today are a mixed blessing. Technological developments over the past several decades have significantly increased both the quantity and the quality of information collected, and the speed with which it can be reported. According to a former Chief of Air Force intelligence "The level of detail provided is sufficient to fulfill many of the information needs of mission execution elements, including even the pilot in the cockpit." (3:44) On the other side of the coin, the tremendous increase in information collection capability threatens to bury intelligence organizations in

near real time information. (23:29) Several potential problems rise out of this glut of information. Because information is so abundantly available, and so quickly, there is a strong temptation to bypass the analysis and production process and deliver unevaluated data to the commander. Pfautz calls this the "fire hose" model of intelligence support. (3:44)

On the operational side, out of ignorance or carelessness, a commander's failure to define his requirements results in intelligence "vacuuming" the environment to ensure it doesn't miss anything that might be of value. (24:30) This leads to inefficiencies in the use of limited collection assets.

Perhaps the most serious potential problem is operational paralysis. Michael Handel explains how this might affect battlefield decisions:

> ...While a lack of intelligence can create indecision and delays in action, the 'overdevelopment' of the technological means of intelligence and its increased availability may cause other serious problems. The modern commander will be so deluged with intelligence that he may become paralyzed trying to sift the relevant data from trivial information. Such an overabundance of intelligence, like its absence, may cause serious delays in decisions. (25:69)

To avoid what might be termed Clausewitz' trap -- We now know more, but this makes more, not less uncertain (8:102) -- we must refer back to the earlier discussion on requirements. A clear and concise statement of objectives is essential to determining intelligence collection

requirements and priorities.

Processing the information

This phase of the intelligence cycle is, if you will, the intelligence staff's center of gravity. It is clearly the most important phase of the cycle. Here, the commander will find out the status of opposing and friendly forces, their capabilities, and forecasts of enemy intentions. The primary function of intelligence analysis and production at the operational level of war is to increase the commander's understanding of the battlefield, or to reverse Clausewitz' dictum "to make us less, not more, uncertain."

Analysis at the operational level should concentrate on determining the enemy's center of gravity through the study of those factors contained in the definition of operational intelligence. In this sense, the term "analysis" is inappropriate because, by definition, analysis involves " separating an intellectual or substantial whole into constituents for individual study." (26:47) For example, each element which contributes to a state's national power -- political structure, industrial base, social fabric, armed forces, etc. -- is assessed independent of the other elements of national power. A center of gravity then can be determined for each element. This is certainly necessary, even critical, to the employment of US national power against opposing elements of national power. This approach, however, does not tell the decision maker which element(s) of enemy

power should be targeted; it does not determine national centers of gravity. Intelligence at the operational level of war must take a holistic approach in assessing an opposing force. Functional analysis forms the stepping stones for this higher level of study. A holistic approach, or integrated analysis, would study the relationship among the various functional areas as they relate to the totality of a nation's power. Then, national centers of gravity can be isolated, and hopefully, one all-important national center of gravity can be determined. (8:619) Figure 2 shows the ideal relationship between functional and integrated analysis, and how they can lead to the identification of centers of gravity.

Intelligence organizations supporting the operational level of war, then, should perform two primary functions. They should analyze the constituent parts of an opponent's national power to build a data base sufficient to identify the center (or centers) of gravity necessary for prudent campaign planning. Both are critical to increasing the commander's understanding of the battlefield.

For many areas of the world, this may be difficult to do. Many commentators on the intelligence community question whether or not sufficient personnel resources are available to perform the analysis and identification functions, particularly on Third World countries. Robert Jervis, for

one, wonders

> ...whether the intelligence community contains the necessary breadth and depth of expertise in many less crucial 'exotic countries than the Soviet Union and China. Knowledge in the intelligence community is likely to be very sparse in many areas. (27:33)

Echoing Jervis, Stephen Flanagan, in his analysis of intelligence management, concludes that "...encyclopedic data bases, particularly on the Third World, have not been adequately maintained during the past decade." (28:63)

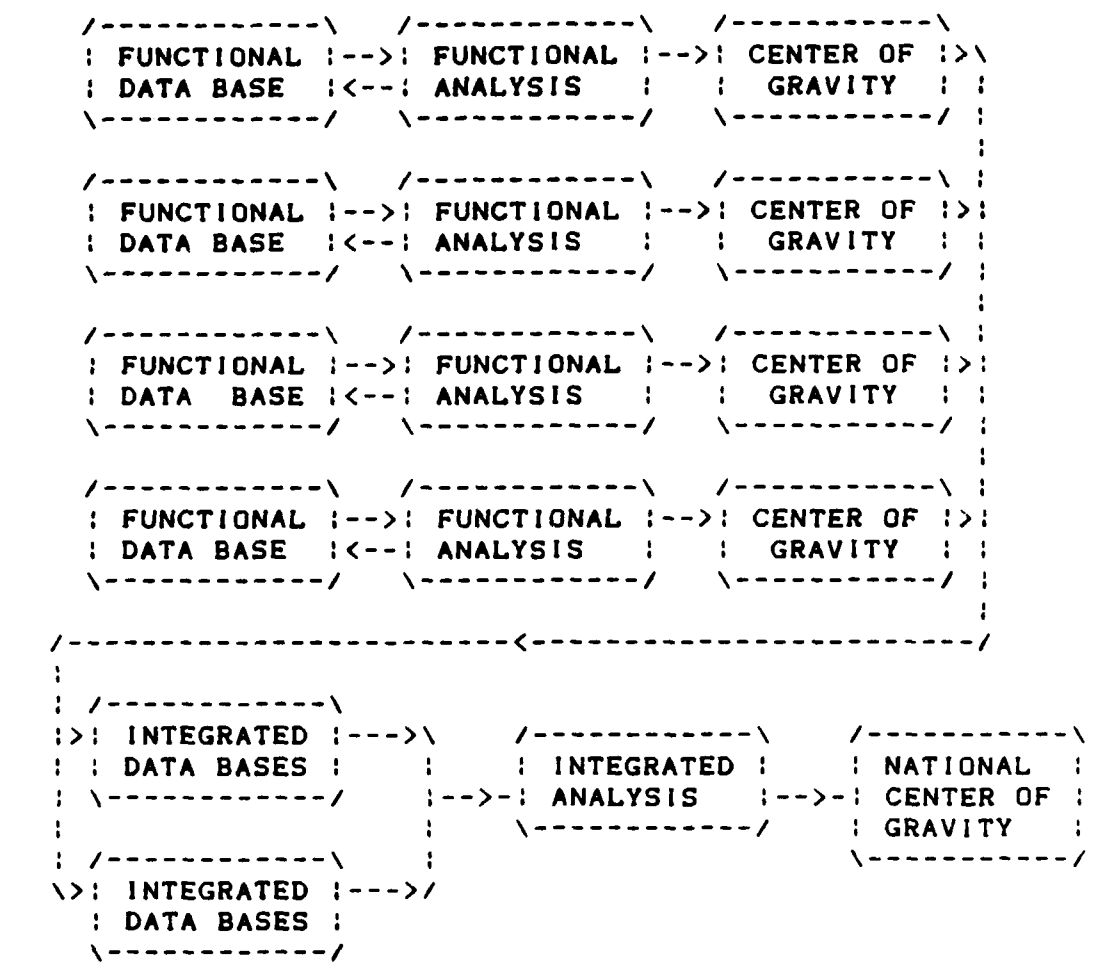
To overcome these deficiencies, intelligence organizations involved in supporting the operational level of war need to give greater priority to analysis, and strike a better balance with the attention given to merely collecting data. (29:312) Without encyclopedic data bases, identification of centers of gravity becomes impossible. If intelligence cannot identify centers of gravity, the operational commander will have a campaign plan based on "hunches and guesses," rather than one built on a solid intellectual foundation.

Support under Combat Conditions

Once hostilities are underway, it is equally important for intelligence organizations to maintain their holistic approach to the study of the opposing force. They must be able to quickly integrate the information coming in from a variety of sources to put together an accurate and timely picture where the enemy is, what his capabilities are, and what he probably intends to do.

FIGURE 2

ANALYTICAL RELATIONSHIP*



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* This chart is meant to convey relationships and should not be construed to mean there are only four functional data bases. Data bases would exist for every element of national power, and include the analysts' knowledge and experience and the more traditional types of data bases such as computer-based systems and the proverbial "shoe box".

To assist in this function, the Army, for example, is developing an automated intelligence support systems known as the All Source Analysis System (ASAS). It will be a computer-based system designed to support the battlefield commander. According to its program managers, "The most important contribution ASAS...will bring to the battlefield is the rapid fusion of all sources of information for timely presentation to the commanders in their decision making process." (25:30) At its most fundamental level, ASAS is a concept to allow quick and and accurate targeting of enemy formations. It will do this by "fusing" information collected from a variety of sources, and portraying it graphically on a computer screen. Its success will depend on how quickly it can assimilate and correlate near-real time information. ASAS promises that

> ...future analysts, staff officers and battlefield commanders will be able to understand quickly, probably for the first time in the history of the conflict, what they do not know about the battlefield. An understanding of the exact elements of the enemy situation estimate that are the most factual and and that are ambiguous will enable the commander to weigh proposed courses of action fully with an accurate assessment of the true risks associated with each recommendation. (25:26)

Hyperbole aside, such a system will certainly contribute to battlefield success, assuming it will be able to fulfill its promises. It is important to note, however, that "fusion" is not the same as integrated analysis. Fusion is the correlation of all sources of information to determine as quickly and as accurately as possible the location of a

potential target. It says nothing about the importance of that target, nor can fusion devices answer Lt Gen Patton's question "If I attack Agrigento, will I bring on a major engagement?" Fusion devices or centers cannot determine an enemy's center of gravity; they are useful analytical tools, but they cannot substitute for knowledge and judgment. They run the danger of becoming Major General Pfautz' "fire hose" model of intelligence support -- give the commander the data and let him decide. A US Army officer succinctly wrapped up the proper relationship between such devices and the intelligence analyst when he wrote "Machines supply raw information--men must supply the answers." (30:34)

CHAPTER 5

ORGANIZATIONAL RESPONSIBILITIES

Overview

The US government operates a vast intelligence service incorporating elements from many offices of the executive branch. Sherman Kent, in his seminal study on intelligence and foreign policy, said "...the federal government has a great many levels of responsibility and, in general, a level of intelligence to serve each one. (12:212)

There are two main levels of intelligence organization in the US. At the national level is the Intelligence Community, whose membership was established by Presidential Directive 12333. Members of the Community include the Central Intelligence Agency (CIA), the National Security Agency (NSA), the Defense Intelligence Agency (DIA), the State Department's Bureau of Intelligence and Research (INR), the four military departments' intelligence elements, the Departments of the Treasury and Energy, the FBI, Department of Defense offices concerned with special reconnaissance programs, and staff elements of the Director of Central Intelligence (DCI). (31:373)

Generic Functions

Intelligence organizations, regardless of their place in national hierarchy, support three basic functions of the government. At the highest levels of government, they support the formulation of foreign policy by providing the

background information for decision making, evaluating responses to alternative policies, and measuring the effectiveness of policies that have been implemented. It can be labeled policy support intelligence.

They also provide information used in planning the size, organization, disposition, and development of US military forces and associated weapon systems. For example, studies of foreign military equipment and trends in foreign technological development, and assessments of the likelihood of an enemy adopting a technological advance help define the number of weapons the US needs and the level of sophistication they should have when fielded. (32:112) This is force planning intelligence.

The third major functional area is supporting US armed forces in their role as guarantors of national security. In this role, intelligence advises the national command authority and field commanders on foreign military capabilities, and maintains the knowledge base required for employing military forces. This support can be categorized as military intelligence.

All three functional areas support the operational level of war and campaign planning to some degree. Policy support intelligence aids in the development of the strategic aims given to the theater commander, that is, those goals he should strive to achieve through the design, organization, and conduct of his campaign plan. Force planning

intelligence will keep the theater commander abreast of changes in weapon system technology in his theater. This will assist him in evaluating the capabilities of his forces to meet new challenges as they occur. Of the three functional areas, military intelligence is be the most important to the operational commander.

There is no clear-cut dividing line between these three basic functions of intelligence. Soviet development and deployment of the SS-20 ballistic missile serves as an example of how knowledge of one system can be used in all three areas. Information obtained during the system's development would have been used for force planning to develop either a countermeasure for it or a comparable system to offset its capabilities. Once deployed in its theater role, the theater commander would have to account for its capability in designing and conducting military operations. Because the SS-20 was deployed against NATO, it posed foreign policy problems for the US.

Organizational Responsibilities

If the level of operational detail required increases in specificity down the chain-of-command, we would expect the level or detail of intelligence required to support military operations to parallel the operational chain. As Sherman Kent stated:

> ...One feels instinctively that there are several 'intelligences' or several levels of intelligence, which indeed there are. In military formations, there

> is usually an intelligence organization at each staff or command echelon...As one descended, the intelligence function became more and more restricted, and more and more technical. (12:212)

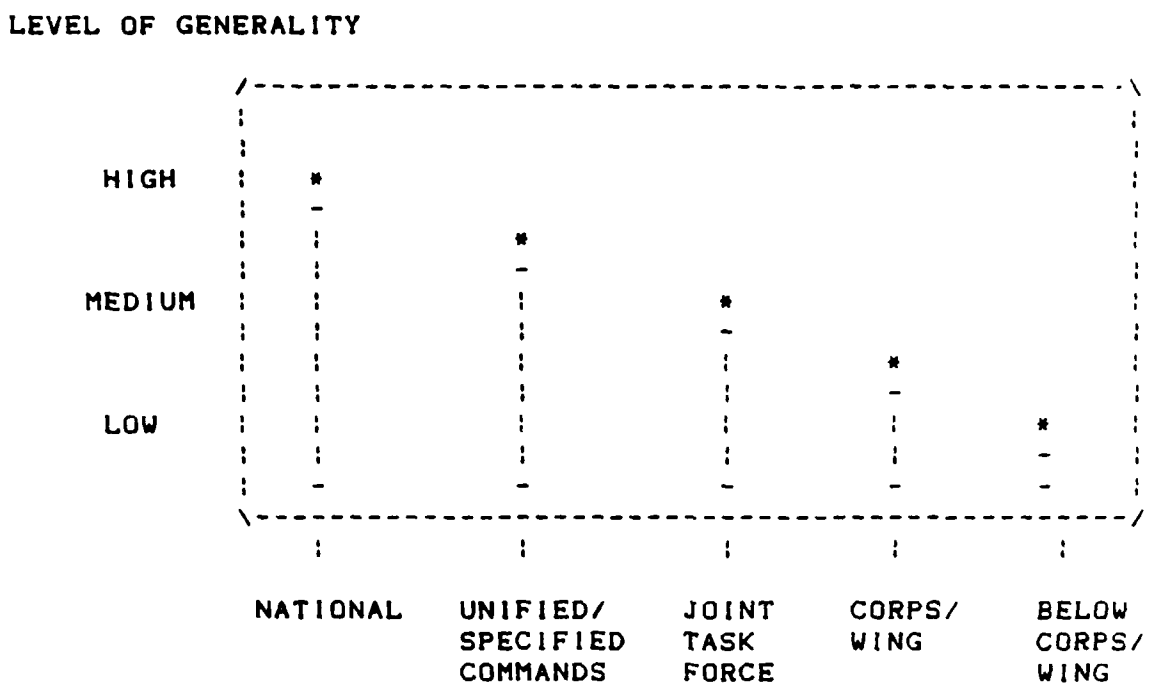
Figure 3 portrays the peacetime and wartime intelligence requirements at the three doctrinal areas of strategy, operational art, and tactics, and corresponding levels of command.

For example, a battalion G-2 will be more interested in the details of organization, equipment, order of battle, and tactics of an opposing ground force unit than in the enemy's strategic goals and his capability to attain them. Conversely, the JCS will be more interested in an enemy's strategic goals and overall military capabilities than details of the an enemy's infantry regiment or fighter squadron. At the operational level, intelligence will focus on the broad aspects of the threat to the theater, and on indications and warning of possible attacks. These functions will support the commander's overall strategy and force disposition. (24:28)

During crises situations and when combat operations are in progress, the information requirements expand. (20:3-47 to 3-56) For example, the range of national-level interests will increase, with a similar increase in interest down the chain-of-command. During the Vietnam War, for instance, there was tremendous daily national interest in the tactical ground situation and with selecting individual targets in North Vietnam. (33:319) Intelligence

FIGURE 3

INFORMATION REQUIREMENTS AT EACH COMMAND LEVEL



* = Peacetime information requirements

\- = Potential growth of information requirements in crisis.

organizations, then, must be able to respond to all levels of command at all levels of information requirements. *But, not every intelligence organization needs to respond to all levels at all times.* A major problem, therefore, is determining how these vast information requirements can be met without creating unnecessary duplication of effort by the various intelligence echelons. If Figure 3 is accurate, then apportioning the responsibilities for meeting these needs to a commensurate command level should put the necessary amount of detail where it can best be used.

Structuring Defense Intelligence to Meet Operational Needs

The primary producers of military intelligence at the national level are the Defense Intelligence Agency (DIA) and the service intelligence organizations. Intelligence staffs at the U & S Commands also produce military intelligence in support of command requirements. In addition, major commands, such as the Air Force's Tactical Air Command, have intelligence staffs as do many unit level commands. Needless to say, with so many staffs producing intelligence there is bound to be overlap.

DIA was created in 1961 to unify the military intelligence effort and eliminate duplication, particularly among the services. (Ransom, 104) This goal apparently has not yet been met. According to Lieutenant General Williams, former Director of DIA:

> Twenty-six years ago the Defense Intelligence Agency created for the express purpose of eliminating

> duplication and overlap among the military services in the field of intelligence duty. While a great deal has been accomplished, that goal has yet to be fully realized. Clear lines of responsibility do not exist; budgets contain duplicative functions; training is not well coordinated; and functions still overlap in some areas. (34:5)

While it is beyond the scope of this paper to address each of Lt Gen William's concerns, there are ways to assign responsibilities for the major types of intelligence required throughout the chain of command.

Figure 4 is an attempt to do this. This matrix shows the three generic types of intelligence required to support political and military decision making and the three essential requirements intelligence analysis must meet.* In the schematic, the three major levels of available support are assigned unique responsibilities. As is apparent, there is no overlap of production responsibilities, but there may be analytical overlap. Also, it is assumed those organizations with a production or coordination responsibility will also be users of the intelligence they produce or coordinate.

The focus of the matrix for the operational level of war is military intelligence at the U & S Command level. It may seem unusual to task this level to be the primary producer of functional and integrated analyses, but not

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* DIA is tasked by Executive Order 12333 to coordinate all Department of Defense collection requirements. It is assumed that the results of any intelligence analysis will be disseminated. Therefore, neither of these parts of the intelligence cycle will be addressed. The concern here is sorting out who should support the operational level of war without creating unnecessary duplication of effort. .pa

responsible for the data base. There are several reasons for this choice. The DIA is in a secure environment and would not be subject to hostile fire during hostilities (except for strategic nuclear war). DIA interacts with all U & S Commands and, in that sense, is at the hub of the military intelligence network. It makes sense to simplify user access to the data base, and to have a standardized input/output system. Third, DIA doesn't move during contingencies, mitigating problems involved in moving the data base within the various theaters. Finally, with its large civilian work force, there is a great deal of resident experience and knowledge available at the DIA that would be invaluable in a prolonged crisis or war.

The DIA, then, would be primarily responsible for providing policy-related intelligence for the Department of Defense, and other elements of the national command authority as required. It would also assume responsibility for integrated analysis of planning intelligence. Here, each service, the Army, Navy, and Air Force, would be responsible for producing intelligence on corresponding foreign forces. For example, the Air Force would produce intelligence on all Soviet aerospace systems and the Navy on all Soviet naval systems. DIA would coordinate production to avoid unnecessary duplication, and integrated analysis to provide a neutral viewpoint of foreign developments to avoid past

FIGURE 4

INTELLIGENCE PRODUCTION RESPONSIBILITIES

ANALYTICAL REQUIREMENTS

TYPES OF INTELLIGENCE	DATA BASE	FUNCTIONAL ANALYSIS	INTEGRATED ANALYSIS
DEFENSE INTELLIGENCE AGENCY			
POLICY	P	P	P
PLANNING	C	C	P
MILITARY	P	C	C
SERVICE LEVEL INTELLIGENCE			
POLICY	U	U	U
PLANNING	P	P	C
MILITARY	U	U	U
U & S COMMAND LEVEL INTELLIGENCE			
POLICY	U	C	C
PLANNING	U	U	U
MILITARY	C	P	P

LEGEND

P = Performs this function as primary responsibility.

C = Coordinates with P. Provides inputs as required. Can task P to meet intelligence requirements.

U = Uses this type of intelligence for internal decision making, but may task P to meet intelligence requirements. No formal production responsibilities.

problems of budget-oriented biases in service assessments. (35:103)

The services, however, are better prepared analyze foreign weapon system developments through their various technical research centers, such as the Air Force's Foreign Technology Division. (17:49) Because of this capability, each service should also be responsible for the data base on foreign weapon systems. DIA should set standards for format, compliance, and access, but not be actively involved in maintenance.

Theater commanders are given primary responsibility for functional and integrated analysis. They are the "war fighters", and it would seem to be in their best interest to rely primarily on their own staffs for military intelligence. The intelligence staffs at this level and below (Corps/Wings, etc.) will know their commander's requirements with greater precision than DIA or service intelligence offices can or should know. They are aware of the commander's operational goals in his campaign plans, and can tailor collection and production priorities to meet these goals. Command intelligence staffs are simply in a better position to give the commander the type of intelligence he needs than the other two levels.

CHAPTER 6

CONCLUSIONS

A new definition for operational intelligence is useful for several important reasons. First, it tells the commander what to expect from his intelligence staff. He can then be more confident his campaign plan is aimed at destroying enemy centers of gravity, and he can better position his forces to accomplish his strategic goal. The commander cannot assume a "I'll know it when I see it" philosophy; to reach his goal, the commander *must know* what kind of intelligence he needs.

Second, it tells the intelligence staff what will expected from it. When intelligence is viewed as knowledge rather than as a system or process, the theater intelligence staff can develop an information base to help the commander more clearly describe his operational goals and subgoals within the theater. This, in turn, will help the intelligence staff prioritize information collection requirements to avoid unnecessary duplication and waste. Also, with a clear description of the commander's objectives, the intelligence staff can develop criteria for determining when goals have been reached.

Beyond redefining operational intelligence, the military intelligence community also must look at its structure to more clearly apportion responsibilities for supporting the operational level of war. There is no

requirement for all levels of intelligence organizations to all do the same thing. In an era of budget constraints, there must be limits on what should be expected from each echelon. Each level must play to its strength.

For operational intelligence, the responsibility for analysis and production should be placed on those organizations closest to the commander. Only there can the intelligence staff be fully aware of what the commander wants to accomplish. DIA and service intelligence staffs cannot interact daily with the commander nor should such interaction be expected. Each has a definite role in supporting the operational level of war, but neither should be directly involved in providing operational intelligence unless asked to do so by theater intelligence staffs.

In the final analysis, the fundamental mission of an intelligence staff at the operational level is to *increase the commander's understanding of the battlefield*. Current definitions of operational intelligence fail to clarify the type of information needed to accomplish this mission. We need a new definition because if we don't know what we're talking about, we won't know what to do, who should do it, or when the job is done.

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